

SS/WP4 Task Force on Data Analysis. These analyses will be performed according to methods agreed upon by SS/WP4.

The second category is data that is less critical to the selection. The Task Force on Data Analysis will examine all the rest of the test data, especially expert observer comments, to find other data which may be significant in making a recommendation. Such information will be brought to the attention of SS/WP4 for possible inclusion in the final report.

The third category of data will not be directly included in the SS/WP4 final report but will remain a part of the record documenting the performance of each system.

Agreement on Recommendations by Consensus

There have been several discussions in the Working Party regarding methods to be used to recommend a proposed ATV system. Each time the issue is raised, the Working Party re-affirms its view that recommendations should be based on consensus. Participants agree that the system adopted for ATV broadcasting in the United States should be that system which embodies the best combination of the Selection Criteria. The difficulty the Working Party has faced is how that system can be identified. A proposal was made that weighting factors be determined for each of the Selection Criteria, that proposed systems receive scores on each of the Selection Criteria depending on how well the system performed in each of the ten areas, and that the combination of weighting factors and scores would lead to the "best" system. Some participants expressed fear that such a deterministic approach could lead to the "recommendation" of a system having little support by the industry, much less consensus. There were also concerns that the Working Party would be unable to reach agreement on the weighting factors because different Selection Criteria have different importance for different segments of the television industry. If consensus does not exist on a single proposal, a rationale based upon the Selection Criteria will be developed for adopting each of the proposed systems which receive significant support.

III. Future Work

The future work of SS/WP4 can best be viewed as writing the final report and, of course, performing the analyses required to write the report. The writing of chapter seven, which details the Selection Criteria, is underway and portions will continue to be adopted by SS/WP4 as they become available. This work is assigned to the Task Force on Report Drafting.

The writing of chapter eight cannot be done until test results are available on the proposed systems. It was anticipated that reports on each tested system would be issued by the testing laboratories about thirteen weeks after tests begin (six weeks after tests are completed at the ATTC and CableLabs, or two weeks after tests are completed at ATEL). It was further anticipated that SS/WP4 would meet to discuss the test results and adopt the individual sections of chapter eight five weeks later (allowing three weeks for analysis by the Task Force on Data Analysis and PS/WP3 and two weeks for distributing the reports to SS/WP4 members). It should be noted that none of these reports are yet available to SS/WP4 even though tests began on the first system 29 weeks¹ ago.

After all systems are tested and all sections of chapter eight are adopted, chapter nine (Comparisons and Recommendations) can be written and adopted. The schedule for this work is directly dependent upon receipt of the test data.

IV. Formulation of Recommendations

It was noted earlier in this progress report that there has been a large turnover in attendance at meetings of SS/WP4. In formulating a recommendation for an ATV system that might serve as the basis for a new broadcasting standard in the United States, it is important that the participants represent a balance of expertise, have a sufficient knowledge of the work of the Advisory Committee, and not have a conflict of interest. This cannot be assured if it is unknown who the participants will be. The issue has been discussed with the Chairman of the Advisory Committee and it is concluded that the Advisory Committee should consider the appointment of a special panel with the responsibility of formulating recommendations for the Advisory Committee. Such a panel should have its membership drawn from the leadership of the Advisory Committee. It would not be appropriate, of course, for representatives of proponents to serve on the panel.

SS/WP4 would continue to produce all the information described in this progress report with the exception of the formulation of the recommendation. This task, which includes the text for chapter nine of the final report, would be assigned to the special panel. Shortly after SS/WP4 finishes its work, the special panel would hold its only meeting. The meeting, which would be held in the Washington area, would not conclude until the special panel completed its assigned task, perhaps as long as one week. The meeting would be conducted in a formal manner, with agreement by consensus, much as international meetings are conducted. The objective of the meeting would be to recommend an ATV system to the Advisory Committee.

¹ From January 31, 1992

V. Appendices:

Attached to this progress report are the following Appendices:

Appendix I Recommendation Process

Appendix II Selection Criteria

Appendix III Target Values for the Selection Criteria

Appendix IV Outline for SS/WP4 Final Report

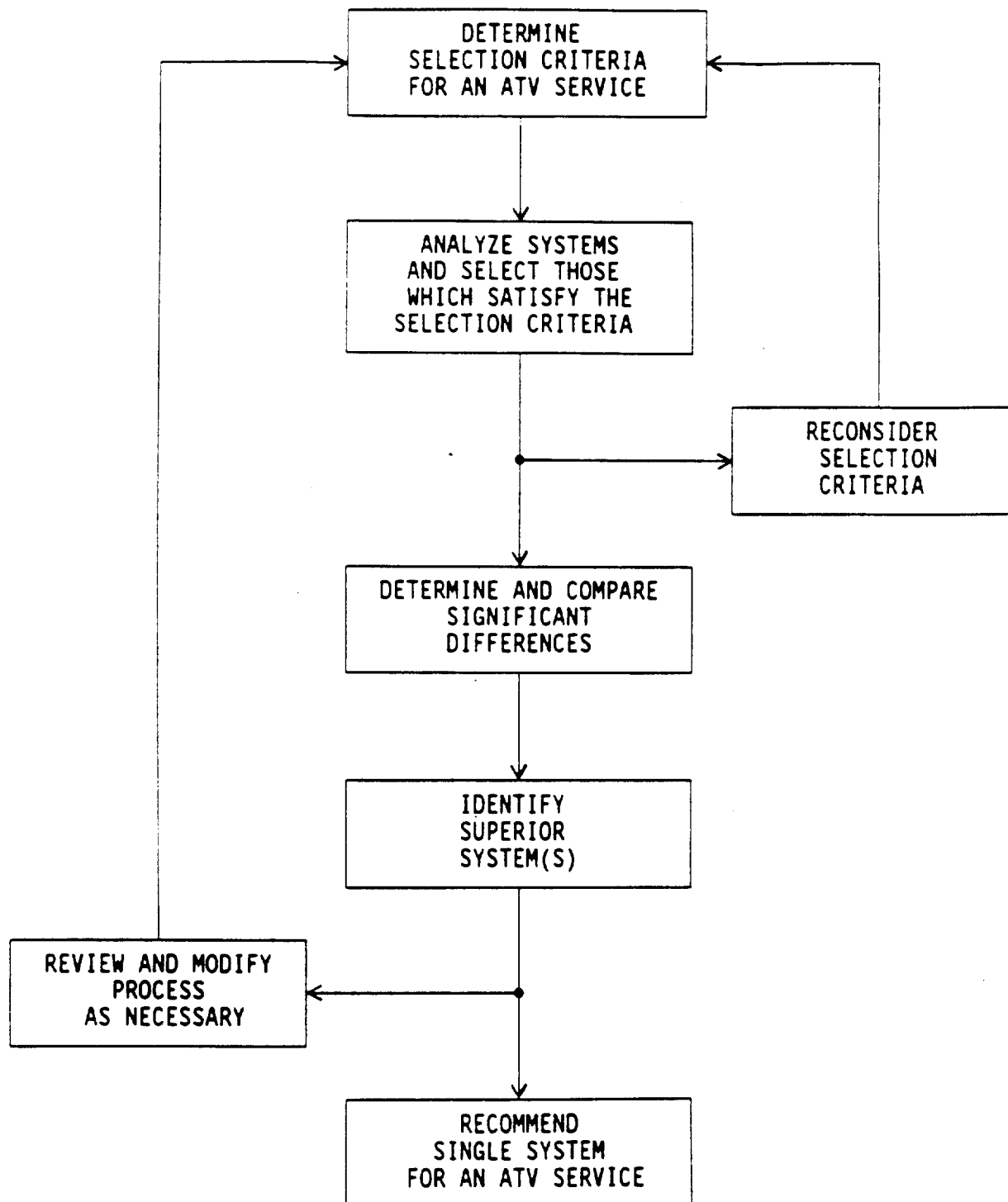
Appendix V SS/WP4 Documents:

SS/WP4-0000 (Document Index)

SS/WP4-0002 (Membership List)

SS/WP4-0053 - SS/WP4-0081 (Documents Released After
the Fourth Interim Report)

RECOMMENDATION PROCESS



SELECTION CRITERIA

Spectrum Utilization

Coverage Area

Accommodation Percentage

Economics

Cost to Broadcasters

Cost to Alternative Media

Cost to Consumers

Technology

Audio/Video Quality

Transmission Robustness

Scope of Services and Features

Extensibility

Interoperability considerations

**FCC ADVISORY COMMITTEE ON ADVANCED TELEVISION SERVICE
SYSTEMS SUBCOMMITTEE
WORKING PARTY ON SYSTEM STANDARDS (SS/WP4)**

OUTLINE FOR SS/WP4 FINAL REPORT

- 1. Executive Summary**
- 2. Introduction**
- 3. Background and History**
- 4. Contributions from the Planning Subcommittee**
 - 4.1. WP1 — Working Party on Technology Attributes and Assessment
 - 4.2. WP2 — Working Party on Testing and Evaluation Specifications
 - 4.3. WP3 — Working Party on Spectrum Utilization and Alternatives
 - 4.4. WP4 — Working Party on Alternative Media Technology and BC Interface
 - 4.5. WP5 — Working Party on Economic Factors and Market Penetration
 - 4.6. WP6 — Working Party on Systems Subjective Assessment
 - 4.7. WP7 — Working Party on Audience Research
 - 4.8. AG1 — Advisory Group on Creative Issues
 - 4.9. AG2 — Advisory Group on Consumer/Trade Issues
- 5. Contributions from the Systems Subcommittee**
 - 5.1. WP1 — Working Party on Systems Analysis
 - 5.2. WP2 — Working Party on Testing and Evaluation
 - 5.2.1. ATTC Report
 - 5.2.2. CableLabs Report
 - 5.2.3. ATEL Report
 - 5.2.4. Field Test Report
 - 5.3. WP3 — Working Party on Economic Assessment
 - 5.4. WP4 — Working Party on System Standards
- 6. Contributions from the Implementation Subcommittee**
 - 6.1. WP1 — Working Party on Policy and Regulation
 - 6.2. WP2 — Working Party on Transition Scenarios

7. Selection Criteria

- 7.1. Introduction
- 7.2. Spectrum Utilization Criteria
 - 7.2.1. Background
 - 7.2.2. Coverage Area
 - 7.2.3. Accommodation Percentage
- 7.3. Economics Criteria
 - 7.3.1. Background
 - 7.3.2. Cost to Broadcasters
 - 7.3.3. Cost to Alternative Media
 - 7.3.4. Cost to Consumers
- 7.4. Technology Criteria
 - 7.4.1. Background
 - 7.4.2. Audio/Video Quality
 - 7.4.3. Transmission Robustness
 - 7.4.4. Scope of Services and Features
 - 7.4.5. Extensibility
 - 7.4.6. Interoperability Considerations

8. Analysis of System Data

- 8.1. System A
 - 8.1.1. Policy and Regulatory Issues
 - 8.1.2. Spectrum Utilization
 - 8.1.3. Economics
 - 8.1.4. Technology
- 8.2. System B
 - 8.2.1. Policy and Regulatory Issues
 - 8.2.2. Spectrum Utilization
 - 8.2.3. Economics
 - 8.2.4. Technology
- 8.3. System C
 - 8.3.1. Policy and Regulatory Issues
 - 8.3.2. Spectrum Utilization
 - 8.3.3. Economics
 - 8.3.4. Technology
- 8.4. Other Sections as necessary (one per system)

9. Comparisons and Recommendations

9.1. System Comparison

- 9.1.1. Policy and Regulatory Issues
- 9.1.2. Spectrum Utilization
- 9.1.3. Economics
- 9.1.4. Technology

9.2. Recommendations

- 9.2.1. Policy and Regulatory Issues
- 9.2.2. Spectrum Utilization
- 9.2.3. Economics
- 9.2.4. Technology

10. Implementation Plan

11. Future Work

- 11.1. Development of Standards

12. Conclusions

13. Notes and Comment

14. Bibliography

15. Acknowledgements

Appendices

- A1. Raw Data
- A2. Methods of Data Reduction
- A3. Glossary

APPENDIX V

SS/WP4 Documents

SS/WP4-0000 (Current Document Index)

SS/WP4-0002 (Current Membership List)

SS/WP4-0053 - SS/WP4-0081 (Documents Released After the Fourth
Interim Report)

FCC ADVISORY COMMITTEE ON ADVANCED TELEVISION SERVICE
SYSTEMS SUBCOMMITTEE
WORKING PARTY ON SYSTEM STANDARDS (SS/WP4)

DOCUMENT INDEX

<u>NUMBER</u>	<u>DATE</u>	<u>DOCUMENT TITLE</u>
SS/WP4-0000		SS/WP4 Document Index
SS/WP4-0001	17 Jan 89	SS/WP4 Charter
SS/WP4-0002		SS/WP4 Membership List
SS/WP4-0003	12 Oct 88	Record of Officers Meeting, October 12, 1988
SS/WP4-0004	13 Jan 89	Voting Procedure, Letter, Tingley to Hopkins
SS/WP4-0005	17 Jan 89	Comments on Doc. SS/WP4-0003, NBC
SS/WP4-0006	17 Jan 89	Suggested Tenets & Criteria for the Selection of ATV Emission Formats, CABSC
SS/WP4-0007	17 Jan 89	Minutes of the First Meeting, January 17, 1989
SS/WP4-0008	23 Feb 89	Progress Report (Submission for the Second Interim Report)
SS/WP4-0009	27 Feb 89	Voting Procedures, SMPTE
SS/WP4-0010	27 Feb 89	ATV Standards, Letter, Engel to Hopkins
SS/WP4-0011	05 Apr 89	ATV Standards, Letter, Lum to Hopkins
SS/WP4-0012	07 Apr 89	ATV Standards, Letter, Rau to Engel
SS/WP4-0013	11 Apr 89	ATV Standards, Letter, Rau to Hopkins
SS/WP4-0014	11 Apr 89	Minutes of the Second Meeting, April 11, 1989
SS/WP4-0015	31 May 89	ATV System Models
SS/WP4-0016	27 Jun 89	ATV System Models, Letter, Lechner to Hopkins
SS/WP4-0017	27 Jun 89	Decision Process, Letter, Lum to Hopkins
SS/WP4-0018	30 Jun 89	ATV System Model, Letter, Chouinard to Hopkins
SS/WP4-0019	12 Jul 89	ATV System Models
SS/WP4-0020	12 Jul 89	Minutes of the Third Meeting, July 12, 1989
SS/WP4-0021	07 Aug 89	One View of the Standards-Recommendation Process, DePriest
SS/WP4-0022	15 Sep 89	Broadcast Technical Standards Development, Tingley
SS/WP4-0023	27 Sep 89	Proposed Process for the Evaluation of ATV System Candidates, Wohlford
SS/WP4-0024	27 Nov 89	Minutes of the Fourth Meeting, November 27, 1989
SS/WP4-0025	14 Dec 89	Progress Report (Submission for the Third Interim Report)
SS/WP4-0026	19 Apr 90	Art Colletta Presentation
SS/WP4-0027	19 Apr 90	Letter, William Nicholls to Robert Hopkins

SS/WP4-0028	14 Jun 90	Minutes of the Fifth Meeting, April 19, 1990
SS/WP4-0029	31 Oct 91	Task Force on Report Drafting, Outline of Final Report of SS/WP4
SS/WP4-0030	14 Jun 90	Task Force on Data Format, Preliminary Report on Data Prioritization
SS/WP4-0031	14 Jun 90	Letter, Lechner to Hopkins
SS/WP4-0032	09 Sep 90	Task Force on Report Drafting, Advisory Committee Schedule
SS/WP4-0033	14 Jun 90	Minutes of the Sixth Meeting, June 14, 1990
SS/WP4-0034	10 Aug 90	Task Force on Data Format, Classification of Test Factors
SS/WP4-0035	06 Aug 90	Status Report of the Task Force on Report Drafting
SS/WP4-0036	06 Aug 90	Task Force on the Recommendation Method, List of Points of Agreement
SS/WP4-0037	25 Oct 90	Minutes of the Seventh Meeting, August 10, 1990
SS/WP4-0038	19 Oct 90	Status Report of the Task Force on Report Drafting
SS/WP4-0039	22 Oct 90	Status Report of the Task Force on Data Format
SS/WP4-0040	25 Oct 90	Status Report of the Task Force on the Recommendation Method
SS/WP4-0041	30 Jul 90	Letter, the Caption Center to Richard Wiley
SS/WP4-0042	11 Sep 90	Letters, Irwin Dorros to Richard Wiley, Richard Wiley to Irwin Dorros, Jerry Pearlman to Richard Wiley
SS/WP4-0043	19 Sep 90	Letter, Richard Wiley to Robert Hopkins
SS/WP4-0044	20 Sep 90	Letter, Gregory Theus to Robert Hopkins
SS/WP4-0045	03 Oct 90	PS/WP3 Statement on Spectrum Criteria
SS/WP4-0046	25 Oct 90	View Graphs to Accompany Doc SS/WP4-0045
SS/WP4-0047	25 Oct 90	Minutes of the Eighth Meeting, October 25, 1990
SS/WP4-0048	16 Jan 91	Letter, Bruce Sidran to Robert Hopkins
SS/WP4-0049	22 Jan 91	Information Flow in the Advisory Committee
SS/WP4-0050	25 Jan 91	Status Report of the Task Force on Data Format
SS/WP4-0051	25 Jan 91	Minutes of the Ninth Meeting, January 25, 1991
SS/WP4-0052	20 Feb 91	Progress Report (Submission for the Fourth Interim Report)
SS/WP4-0053	03 Apr 91	Letter, Sidran to Hopkins
SS/WP4-0054	14 May 91	Letter, Sidran to Hopkins
SS/WP4-0055	17 Apr 91	Letter, Goldberg to Hopkins
SS/WP4-0056	21 May 91	Comments on Critical Objectives
SS/WP4-0057	13 May 91	Proposal for TV Audio & Data Services
SS/WP4-0058	21 May 91	Minutes of the Tenth Meeting, May 21, 1991
SS/WP4-0059	05 Jun 91	Letter, Chouinard to Hopkins
SS/WP4-0060	27 Jun 91	ATTC Test Data Files
SS/WP4-0061	27 Jun 91	Audio Quality Test Data Sheets
SS/WP4-0062	28 Jun 91	CableLabs Data Sheets
SS/WP4-0063	27 Jun 91	ATEL Test Data Sheets

SS/WP4-0064	27 Jun 91	Minutes of the Eleventh Meeting, June 27, 1991
SS/WP4-0065	19 Aug 91	Report of Task Force on Report Drafting
SS/WP4-0066	29 Aug 91	Report of Task Force on Data Analysis
SS/WP4-0067	26 Sep 91	SS/WP4 Recommendation Process
SS/WP4-0068	25 Sep 91	draft Test and Report Schedule
SS/WP4-0069	29 Aug 91	Minutes of the Twelfth Meeting, August 29, 1991
SS/WP4-0070	29 Aug 91	SS/WP4 Selection Criteria
SS/WP4-0071	02 Oct 91	Letter from Wiley to Hopkins
SS/WP4-0072	08 Oct 91	Letter from Miller to Hopkins
SS/WP4-0073	10 Oct 91	Letter from Sidran to Hatfield
SS/WP4-0074	01 Nov 91	Report of Task Force on Report Drafting
SS/WP4-0075	04 Nov 91	Report of Task Force on Data Analysis
SS/WP4-0076	04 Nov 91	Bruce Sidran letter of resignation from TFRD chair
SS/WP4-0077	05 Nov 91	GTE Comments on Selection Criteria Target Values
SS/WP4-0078	05 Nov 91	SS/WP4 Treatment of Test Data
SS/WP4-0079	03 Feb 91	Target Values for the SS/WP4 Selection Criteria
SS/WP4-0080	05 Nov 91	Letter from Hopkins to Richer
SS/WP4-0081	05 Nov 91	Minutes of the Thirteenth Meeting, November 5, 1991
SS/WP4-0082	07 Feb 91	Progress Report (Submission for the Fifth Interim Report)

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